

ABSTRACT OF THE DISCLOSURE

A semiconductor integrated circuit includes non-volatile memory elements (PM1, PM2), each of which has a first source electrode, a first drain electrode, a floating gate electrode and a control gate electrode and is capable of having different threshold voltages, and read transistor elements (DM1, DM2), each of which has a second source electrode and a second drain electrode and is capable of having different mutual conductances according to the threshold voltage of the non-volatile memory element. The read transistor element has a switching state according to the electron injection state or the electron emission state, in other words, the writing state or the erasing state of the floating gate electrode. In a read operation, it is not necessary to cause a channel current to flow according to the threshold voltage of the non-volatile memory element.